



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,032	03/18/2004	Brig Barnum Elliott	03-4056	5605
25537	7590	09/05/2007		
VERIZON PATENT MANAGEMENT GROUP 1515 N. COURTHOUSE ROAD SUITE 500 ARLINGTON, VA 22201-2909			EXAMINER FIGUEROA, MARISOL	
			ART UNIT 2617	PAPER NUMBER
			NOTIFICATION DATE 09/05/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patents@verizon.com

Office Action Summary	Application No.	Applicant(s)	
	10/803,032	ELLIOTT, BRIG BARNUM	
	Examiner	Art Unit	
	Marisol Figueroa	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-10,13-18 and 22-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-10,13-18 and 22-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/29/2007 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 3, 5-10, 13-18 and 22-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 3, 5, 6-9, 28, and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over FARRIS et al. (US 5,751,789) in view of OCHI et al. (US 2004/0033779 A1).

Regarding claim 1, Farris discloses a device (Smart Network Interface Device SNID or wireless-to-landline interface) for enabling network connectivity with a service provider, the device comprising:

a wireless transceiver (Fig. 2; Cellular Transceiver 51);

an antenna coupled to the wireless transceiver (Fig. 2; Antenna 25); and

a switch coupled to the wireless transceiver and to a wireline network (Fig. 2; col.2, lines 42-45 and 55-59; Switch 45), the switch exchanging data with the network service provider over the wireline network during normal operation and exchanging data with the network service provider via the wireless transceiver when the connectivity is lost on the wireline network (col.3, lines 9-45; col.6, line 31-col. 7, lines 1-12; col.8, lines 54-62; the switch has two latched states, normal line-connected state (1) in which the switch is connected to the active twisted pair of the customer premises and changes to a second state (2) in where the active twisted pair is connected to the landline-to-cellular interface, the switch connects the active twisted pair to the landline-to-cellular interface when a fault is detected to exchange information with the local serving mobile telephone switching office (MTSO) of a wireless communication network via the cellular transceiver).

But, Farris does not particularly disclose wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity to a network.

However, Ochi teaches a wireless transceiver configured to relay data from other wireless transceivers that have lost connectivity to a network (Fig. 1; paragraph [0017], [0039], and [0040]; the relay node 106 (i.e., wireless transceiver) acts as a proxy for user nodes 102 (i.e., other wireless transceivers) to communicate with a corresponding node (i.e., network) when the communication link between the user nodes and the corresponding node is disconnected (i.e., lost connectivity)). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Farris to configure the wireless transceiver to relay data from other wireless transceiver that have lost connectivity to a network, as suggested by Ochi, since Ochi states that such a modification would offer the other wireless transceivers an

Art Unit: 2617

smooth provision of services from the network when a direct connection is lost (paragraph [0017]).

Regarding claim 3, the combination of Farris and Ochi disclose the device of claim 1, in addition the combination discloses wherein the wireless transceiver relays data from the other wireless transceivers that have lost connectivity by forwarding data units from the other wireless transceivers through the switch and to the wireline network (note that the combination of Farris and Ochi will produce this, see remarks about claim 1 above).

Regarding claim 5, the combination of Farris and Ochi disclose the device of claim 1, in addition Farris discloses wherein the device is physically located at a location of a subscriber of the network service provider (col.4, lines 18-21).

Regarding claim 9, the combination of Farris and Ochi disclose the device of claim 1, in addition Farris discloses wherein the switch monitors a failed connection state of the wireline network for renewed connectivity of the wireline network and resumes communication over the wireline network when the wireline connection is renewed (col.10, lines 41-56).

Regarding claim 28, Farris discloses a network comprising:

wireline connections to a plurality of subscribers (note that it is conventional and well known in the art to provide wireline connections/services to a plurality of subscribers);

network interface units (NIUs) located at the plurality of subscribers (col.2, lines 40-45; col.4, lines 18-21; note that it is inherent to recognize when there is a plurality of wireline subscribers there will be a plurality of network interface units (i.e. SNID), one located at each subscriber premises), the NIUs each including:

a wireless transceiver (col.4, lines 26-28; Fig. 2; Cellular Transceiver 51); and

a switch coupled to the wireless transceiver and to one of the wireline connections (Fig. 2; col.2, lines 42-45 and 55-59; Switch 45), the switch providing data from one of the wireline connections to a corresponding subscriber of the network during normal operation of the one of the wireline connections and the switch providing data from the wireless transceiver to the corresponding subscriber of the network when connectivity on the one of the wireline connections fail (col.3, lines 9-45; col.6, line 31-col. 7, lines 1-12; col.8, lines 54-62; the switch has two latched states, normal line-connected state (1) in which the switch is connected to the active twisted pair of the customer premises and changes to a second state (2) in where the active twisted pair is connected to the landline-to-cellular interface, the switch connects the active twisted pair to the landline-to-cellular interface when a fault is detected to exchange information with the local serving mobile telephone switching office (MTSO) of a wireless communication network via the cellular transceiver).

But, Farris does not particularly disclose wherein the wireless transceiver is configured to communicate with other NIUs and to relay data from other wireless transceivers in the other NIUs when connectivity other respective connections to a network fails.

However, Ochi teaches a wireless transceiver configured to communication with other wireless transceivers (i.e., NIUs) and to relay data from the other wireless transceivers when their respective connections to network fails (Fig. 1; paragraph [0017], [0039], and [0040]; the relay node 106 (i.e., wireless transceiver) acts as a proxy for user nodes 102 (i.e., other wireless transceivers) to communicate with a corresponding node (i.e., network) when the communication link between the user nodes and the corresponding node is disconnected (i.e., lost connectivity)).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Farris to configure the wireless transceiver to communicate with other wireless transceivers and relay data from other wireless transceiver when their respective wireline connections fails, as suggested by Ochi, since Ochi states that such a modification would offer the other wireless transceivers an smooth provision of services from the network when a direct connection is lost (paragraph [0017]).

Regarding claim 30, the combination of Farris and Ochi disclose the network of claim 28, in addition Farris discloses wherein the NIUs each additionally include an antenna coupled to the wireless transceiver (Fig. 2; Antenna 25).

Regarding claim 31, the combination of Farris and Ochi disclose the network of claim 28, in addition Ochi discloses wherein the wireless transceiver is configured to relay data from other wireless transceivers that have lost connectivity with the wireline connections (Fig. 1; paragraph [0017], [0039], and [0040]; note that the combination of Farris and Ochi will produce this, additionally see remarks about claim 28 regarding the combination of Farris and Ochi above).

Regarding claim 32, the combination of Farris and Ochi disclose the network of claim 28, in addition the combination discloses wherein the wireless transceiver relays data from the other wireless transceivers that have lost connectivity by forwarding data units from the other wireless transceivers through the switch and to the wireline network (note that the combination of Farris and Ochi will produce this, see remarks about claim 1 above).

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over FARRIS et al. in views of OCHI et al. and well known prior art (MPEP 2144.05).

Regarding claim 6, the combination of Farris and Ochi disclose the device of claim 1, in addition Farris disclose that a variety of wireless transceivers could be used (col.7, lines 13-23), but fails to specifically disclose wherein the wireless transceiver operates in accordance with IEEE 802.11 standards. However, the Examiner takes official notice of the fact that is notoriously well known in the art that the IEEE 802.11 standard is a wireless network technology. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to modify Farris to include a wireless transceiver in accordance with IEEE 802.11 standards, since it is notoriously and well known in the art that that the IEEE 802.11 standard is one of a variety of wireless transceivers used in wireless networks and Farris' invention will perform equally well as with using a cellular transceiver, since Farris indicates that his invention is not restricted to using only a cellular transceiver.

6. **Claim 7** rejected under 35 U.S.C. 103(a) as being unpatentable over FARRIS et al. in views of OCHI et al. and EHRETH (US 6,246,750 B1).

Regarding claim 7, the combination of Farris and Ochi disclose the device of claim 1, but the combination does not particularly disclose wherein the wireline network includes a fiber network. However, Ehreth teaches that telecommunication systems using fiber optic cable to transmit communication signals are becoming increasingly prevalent due to the enormous advantages that fiber-optic technology provides (col.1, lines 25-31). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination in order for the wireline network to include a fiber network, as suggested by Ehreth, because telecommunication systems using fiber optic cables have enormous advantages over copper-wire based systems such as larger bandwidth and improved signal quality.

Art Unit: 2617

7. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over FARRIS et al. in views of OCHI et al and McKENNA et al. (US 6,829,486 B2).

Regarding claim 8, the combination of Farris and Ochi disclose the device of claim 1, but the combination does not particularly disclose wherein the wireline network includes coaxial cables. However, McKenna teaches that wirelined-based communications networks such as traditional telephone systems, Local Area Networks, and the like, can use a variety of physical media to interconnect wired subscribers devices to the wirelined-based communication network and these include: twisted pair, Ethernet, coaxial cable, fiber optic cable, DSL on twisted pair, 4-wire, and the like (col.9, lines 31-59). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to modify the combination in order for the wireline network to include coaxial cables, as taught by McKenna, because it is conventional and well known in the art that coaxial cables is one of the variety of physical media used to interconnect subscribers in a wirelined-based communication network.

8. **Claims 10, 13, 15, 17, 18, and 22-26** are rejected under 35 U.S.C. 103(a) as being unpatentable over CARDINA et al. (US 2004/0214569 A1) in views of OCHI et al., and SENDROWICZ (US 2003/0134598 A1).

Regarding claim 10, Cardina discloses a method performed by a network subscriber comprising:

establishing connectivity to a network service provider over a wireline connection (paragraph [0038] lines 1-9; note that when there is no interruptions in the subscriber's landline/wireline there is a direct connection with the network service provider over the landline connection);

monitoring the wireline connection for failure (paragraph [0038] lines 1-9 and [0070]; the backup device detects service interruptions in the subscriber's landline, thus it is inherent to recognize that the landline connection is monitored); and

automatically establishing a connection to the network service provider over a wireless connection when the wireline connection fails (Fig. 1; paragraphs [0008], [0012], and [0070]-[0073]; upon detecting a failure condition in the landline the backup device 102 automatically provides backup service to the landline telephone equipment through a wireless telephone/connection).

But, Cardina does not particularly disclose wherein the connection to the network service provider is established over a wireless connection relayed via one or more other network subscribers.

However, Ochi teaches wherein a connection to a network is established over a wireless connection relayed via one or more other network subscribers (Fig. 1; paragraph [0017], [0039], and [0040]; the communication of the user node 102 with the correspondent node (i.e., network) is relayed via a relay node 106 (i.e., network subscriber) when the communication link between the user node and the corresponding node is disconnected). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Farris to include the features of establishing a connection to a network over a wireless connection relayed via one or more other network subscribers, as suggested by Ochi, since Ochi states that such a modification would offer the subscribers (i.e., user node) an smooth provision of services from the network when a direct connection is lost (paragraph [0017]).

But, the combination of Cardina and Ochi does not particularly disclose wherein the wireless connection is established over multiple hops in an ad-hoc network formed via a plurality of network units. However, Sendrowicz teaches an ad-hoc communication network among a plurality of houses (Fig. 1b) comprising a household consumption meter with a transceiver for relaying information within neighboring meters. Information such as household consumption value HCV from each meter propagates from meter to meter until it reaches a central station, establishing a multi hop relaying path (paragraphs [0104]-[0109]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination to include the features of wherein the wireless connection is established over multiple hops in an ad-hoc network formed via a plurality of network units, as suggested by Sendrowicz, in order to relay a service or information using a plurality of wireless relaying paths until it reaches the desired destination.

Regarding claim 13, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 10, in addition Choi discloses wherein the wireless connection is formed in accordance with IEEE 802.11 standards (paragraph [0040]).

Regarding claim 15, the combination of Cardina, Choi, and Sendrowicz disclose the method of claim 14, in addition Cardina discloses wherein automatically establishing a connection to the network service provider further includes authorizing the subscriber to use the network (paragraph [0012]; the backup device automatically registers with the MTSO, note that registration involves authorization).

Regarding claim 17, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 10, in addition Cardina discloses further comprising: monitoring a failed

Art Unit: 2617

connection state of the wireline connection for renewed connectivity of the wireline connection; and disconnecting from the wireless connection when the wireless connection is renewed (paragraph [0015]).

Regarding claim 18, Cardina discloses a method for providing fallback network connectivity to a network service provider comprising:

providing primary network connectivity over a wireline connection (Fig.1; paragraphs [0057]-[0058] lines 1-4; landline connection 101 between the customers premises equipment 106 and the public switched telephone network (PSTN) 108 of the landline/wireline network); and

providing backup network connectivity via a wireless network implemented via a wireless network (Fig. 1; paragraphs [0008], [0012], and [0070]-[0073]; the backup device 102 (i.e., network node) automatically provides backup service to the landline telephone equipment through a wireless telephone/network)) over a plurality of network nodes located at residences of subscribers of the network service provider (Fig. 1; paragraph [0009]; the system support a plurality of backup devices (i.e., network nodes) for the plurality of subscribers of the wireline network).

But, Cardina does not particularly disclose wherein the wireless backup connectivity is implemented by relaying data to a first node in the wireless network that has an active connection to the network service provider.

However, Ochi teaches wherein a backup/wireless connectivity is implemented by relaying data to a node that has an active connection to a network (Fig. 1; paragraph [0017], [0039], and [0040]; the communication of the user node 102 with the correspondent node (i.e., network) is relayed via a relay node 106 (i.e., network subscriber) when the communication link

Art Unit: 2617

between the user node and the corresponding node is disconnected). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify Farris to include the features of wherein a backup/wireless connectivity is implemented by relaying data to a node that has an active connection to a network, as suggested by Ochi, since Ochi states that such a modification would offer the subscribers (i.e., user node) an smooth provision of services from the network when a direct connection is lost (paragraph [0017]).

But, the combination of Farris and Ochi does not particularly disclose wherein the wireless network includes an ad-hoc network and the backup connectivity is established over multiple hops in the ad-hoc network wireless network.

However, Sendrowicz teaches an ad-hoc communication network among a plurality of houses (Fig. 1b) comprising a household consumption meter with a transceiver for relaying information within neighboring meters. Information such as household consumption value HCV from each meter propagates from meter to meter until it reaches a central station, establishing a multi hop relaying path (paragraphs [0104]-[0109]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination with the teachings of Sendrowicz, to include the features of wherein the wireless network includes an ad-hoc network and the wireless connectivity is established over multiple hops in the ad-hoc network wireless network, as suggested by Sendrowicz, in order to relay a service or information using a plurality of wireless relaying paths until it reaches the desired destination.

Regarding claim 22, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 18, in addition Ochi discloses wherein the wireless network is formed in accordance with IEEE 802.11 wireless connectivity standards (paragraph [0040]).

Regarding claim 23, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 18, in addition Cardina discloses wherein providing the backup network connection includes authorizing the subscriber of the network with the network service provider (paragraph [0012]; the backup device automatically registers with the MTSO, note that registration involves authorization).

Regarding claim 24, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 18, in addition Cardina discloses further comprising: providing the backup network connectivity in response to a failed connection state of the wireline connection (paragraphs [0008] and [0011]).

Regarding claim 25, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 24, in addition Cardina discloses further comprising: monitoring failed connection state of the wireline connection for renewed connectivity of the wireline connection; and disconnecting from the backup network connectivity when the wireline connection is renewed (paragraph [0015]).

Regarding claim 26, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 18, in addition Cardina disclose wherein the network service provider provides Internet connectivity or telephony services (Fig. 1; the network service provider is a Public Switched Telephone Network (PSTN) that provide telephony services).

9. **Claims 14 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over CARDINA et al. in views of OCHI et al., SENDROWICZ, SAWADA (US.2005/0148315 A1).

Regarding claim 14, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 10, but the combination does not particularly disclose wherein automatically

Art Unit: 2617

establishing a connection to the network service provider includes broadcasting a message requesting a relay to the network service provider by the one or more other network subscribers.

However, Sawada teaches broadcasting a message requesting a relay to the network service provider by the one or more other network subscribers (paragraphs [0066]-[0067]). Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention, to modify the combination to include the features of broadcasting a message requesting a relay to the network service provider by the one or more other network subscribers, as suggested by Sawada, in order for the communications/connection to be relayed in response to the issuing of a relay request (paragraph [0067])

Regarding claim 16, the combination of Cardina, Ochi, Sendrowicz, and Sawada disclose the method of claim 10, in addition Sendrowicz discloses wherein the relaying one or more other network subscribers forward data wirelessly from the network over a second wireless connection to the network service provider (Fig. 1b; i.e., plurality of wireless relaying paths).

10. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over CARDINA et al. in views of OCHI et al., SENDROWICZ, and McKENNA et al.

Regarding claim 27, the combination of Cardina, Ochi, and Sendrowicz disclose the method of claim 18, but the combination does not particularly disclose wherein the wireline network includes a fiber connection or a coaxial connection leading to a subscriber of the network service provider.

However, McKenna teaches that wirelined-based communications networks such as traditional telephone systems, Local Area Networks, and the like, can use a variety of physical media to interconnect wired subscribers devices to the wirelined-based communication network

Art Unit: 2617

and these include: twisted pair, Ethernet, coaxial cable, fiber optic cable, DSL on twisted pair, 4-wire, and the like (col.9, lines 31-59). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to modify the combination in order for the wireline network to include coaxial cables, as taught by McKenna, because it is conventional and well known in the art that coaxial cables is one of the variety of physical media used to interconnect subscribers in a wirelined-based communication network.

11. **Claim 29** is rejected under 35 U.S.C. 103(a) as being unpatentable over FARRIS et al. in views of OCHI et al. PATRON et al. (US 2005/0063333 A1).

Regarding claim 29, the combination of Farris and Ochi disclose the network of claim 28, but the combination does not particularly disclose wherein the NIUs form a wireless ad-hoc network. However, Patron teaches that Ad-hoc networks usually consist of several computing devices each equipped with a wireless transceivers (P.0001). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to recognize that an ad-hoc network may form between the plurality of NIUs, as taught by Patron, because an Ad-hoc network usually consists of devices comprising wireless transceivers and each NIU comprises a wireless transceiver.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marisol Figueroa whose telephone number is (571) 272-7840. The examiner can normally be reached on Monday Thru Friday 8:30 a.m. - 5:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G.

Art Unit: 2617

Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Marisol Figueroa
Art Unit 2617


LESTER G. KINCAID
SUPERVISORY PRIMARY EXAMINER